

IN THE CLAIMS:

1. (Currently Amended) Apparatus for non-destructive hyperthermia therapies, characterized in that it comprises means-(1) for generating radio-frequency electromagnetic radiations, connectable to means-(5, 6) for the application of said radiations to the human body.

2. (Currently Amended) Apparatus according to claim 1, characterized in that the said means-(5, 6) comprise an active electrode-(5) and a reference electrode-(6), the said active electrode-(5) being provided with means-(52) for the detection of the skin's temperature.

3. (Currently Amended) Apparatus according to claim 2, characterized in that the said means-(52) for the detection of the skin's temperature are made up of at least a sensor incorporated in the electrode-(5).

4. (Currently Amended) Apparatus according to claim 2, characterized in that the said means-(52) for the detection of the skin's temperature are made up of at least a sensor which can be connected to the apparatus and removably associated with the active electrode-(5) in correspondence of a relevant seat-(53) thereof.

5. (Currently Amended) Apparatus according to claim 2, characterized in that the said means-(52) for the detection of the skin's temperature are connected to a control circuit-(7, 8) connectable to and acting on said means-(1) for generating' radio-frequency radiations.

6. (Currently Amended) Apparatus according to claim 2, characterized in that the said electrodes ~~(5, 6)~~ consist of conductive plates or membranes.

7. (Currently Amended) Apparatus according to claim 2 and/or 6, characterized in that the structure of the active electrode ~~(5)~~ is complementary shaped with respect to the body's region of the patient to be treated.

8. (Currently Amended) Apparatus according to claim 2, characterized in that the said reference electrode ~~(6)~~ has dimensions larger than those of the active electrode ~~(5)~~.

9. (Currently Amended) Apparatus according to claim 2, characterized in that it comprises more active electrodes ~~(501, 502, 503)~~ connected to a switch device ~~(50)~~ able to connect in sequence said active electrodes to said means ~~(1)~~ for generating radio-frequency radiations.

10. (Currently Amended) Apparatus according to one or more preceding claims claim 1, characterized in that it comprises means ~~(7, 8, 9, 52, 10)~~ for adjusting the temperature reached on the skin and able to vary the output power in order to keep the skin's temperature at a preset value.

11. (Currently Amended) Apparatus according to one or more preceding claims claim

1, characterized in that it comprises means-(81, 82) for measuring the output power and the impedance in correspondence of the application means-(5, 6).

12. (Currently Amended) Apparatus according to ~~one or more preceding claims~~ claim 1, characterized in that it comprises means-(85) to preset the duration of the treatment.

13. (Currently Amended) Apparatus according to ~~one or more preceding claims~~ claim 1, characterized in that it comprises means-(80) for connection with an electronic processor.